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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/699,242	NALAWADI ET AL.	
	Examiner	Art Unit	
	Jianye Wu	2416	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>30 January 2009</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-3,5,8-23 and 25-37</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3,5,8-23 and 25-37</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____.

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments/Arguments

1.   Applicant's arguments/amendments filed on 1/30/09 have been fully considered,

they are persuasive. Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground of rejection is made.

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

2.   **Claims 1-3, 5, 9-12** and **37** are rejected under 35 U.S.C. 101 because

the claimed invention is directed to non-statutory subject matter.

While the claims recite a series of steps or acts to be performed, a

statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory

category (such as a manufacture or machine), or (2) transform underlying

subject matter (such as an article or material) to a different state or thing

(Reference the May 15, 2008 memorandum issued by Deputy Commissioner

for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes'

under 35 U.S.C. 101").

Claim 1 recites "**a method** comprising:

obtaining a total memory bandwidth …;

obtaining a plurality of bandwidth request …;

apportioning at least a portion …".

The instant claim neither transform underlying subject matter nor recite structure associated with another statutory category, and therefore do not define a statutory process.

Claim 2-3 and 37 are also rejected because they depend from claim 1.

Claim 5 recites "**a method** comprising:

delaying ...;

appending ...;

using the transmission policy to identify ..." and

using the transmission policy to select ...".

The instant claim neither transform underlying subject matter nor recite structure associated with another statutory category, and therefore do not define a statutory process.

Claim 9-12 are also rejected because they depend from claim 5.

For examination on the merits, the claims will be interpreted as the best understood.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   **Claims 1-3** and **37** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention.

Claim 1 recites the limitation "by combining data of at least two isochronous data

packet transmissions into a combined data packet" which is added to the claim 1 on

12/11/2008. There is insufficient support in the specification for this limitation in the

claim.

Claim 2-3 and 37 are rejected because they depend from claim 1.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5. Claims 5, 8 and 17 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claims 5 and 17 recite the newly added limitations "using the transmission policy

to identify ..." in the second last paragraph and "using the transmission policy to select

..." in the second last paragraph. There is insufficient antecedent basis for the limitation

of "the transmission policy" the in the claims.

Claim 8 depends from claim 6. However, claim 6 is cancelled.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7.   **Claim 1, 3, 13-16, 22, 28-30, 32** and **37** are rejected under 35 U.S.C. 103(a) as

being unpatentable over Chan et al. (US 20020052990 A1, hereinafter **Chan**) in view of

MacDonald et al. (US 5894577, hereinafter **MacDonald**).

For **Claim 1, 13, 22, 28**, Chan discloses a method, a device, an article of

manufacture and a system comprising:

a bandwidth manager (the operating system of "Portable computers", [0005] and

[0006], or memory controller 122 of FIG. 1, which has total control over the memory and

is able to obtain a total or part of memory bandwidth any time) configured to apportion

at least a portion of a total memory bandwidth available for a time period, amongst a

plurality of bandwidth requests for the time period for a plurality of isochronous devices

("read-write mass storage driver 114" which can be "hard drivers, floppy drivers, optical

drivers and the like", [0037] and CD-ROM drive 138 of FIG. 1; they are isochronous

devices because video/audio data to/from them are isochronous), according to a power

managed profile ("Power management Routines (PMRs)", [0041], where RMRs are

power managed profiles; and "Under appropriate operating conditions, the PMRs may

place the computer 100 into one of the several power management operating modes",

[0041]) and a plurality of data rate requirements associated with the plurality of

isochronous devices (data requests associated with drivers such as 114 and 138, FIG.

1);

the power managed profile causes the bandwidth to be apportioned amongst the

requests (the operating system or bus controller 124 has total control over bandwidth

allocation as shown in FIG. 1, it manages bandwidth requests from different devices,

such as driver 114 and 138);

a data transmission manager (the operating system or controller 124 of FIG. 1) to

delay transmission of a first isochronous data transmission having media data to be

transmitted to or from a first of the isochronous devices, and append the first

isochronous data transmission with a second isochronous data transmission having

media data to be transmitted to or from the first isochronous device into a combined

data transmission (data streams from drives such as 114 and 138 merge into a

combined data streams in bus 116 as shown in FIG. 1), according to a data

transmission policy ("Under appropriate operating conditions, the PMRs may place the

computer 100 into one of the several power management operating modes", [0041]), a

data bus (bus 116 of FIG. 1) coupled between the memory and the plurality of

isochronous devices, wherein the combined data transmission is read from or written to

the memory via the data bus (bus between 120 and 122 of FIG. 1);

apportioning includes dividing the total memory bandwidth into a plurality of

portions of the total memory bandwidth and satisfying a plurality of bandwidth requests

each with at least one of the plurality of portions of the total memory bandwidth (the

Operating System apportioning memory bandwidth into a plurality of portions to meet

the requests associated with drives, such as drivers 114 138 to ensure data arrive on

desired destinations as shown in FIG. 1 in view of [0037]).

Chan is silent on the power managed profile based at least on interrupt driven

asynchronous activity and isochronous data communication.

MacDonald discloses interrupt driven ("interrupt driven", col, 1, line 35-38) which

reduces power assumption ("stopping unused clock signals and/or removing power from

inactive circuit portions", col. 1, line 35-38). Interrupt driven is a technique that

commonly used by the computer Operating System.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to modify the power managed profile disclosed by Chan with

the interrupt driven technique disclosed by MacDonald in order to save power

assumption.

As to **Claim 3**, Chan and MacDonald disclose the method of claim 1, wherein

obtaining a plurality of bandwidth requests (CPU 120 of FIG. 1 controls 122 or 124 of

FIG. 1 in generating requests) includes polling a plurality of isochronous applications

(e.g., software programs playing various audio and video streams from IDE devices,

lines 11 of [0076], poll the IDE devices) corresponding to the plurality of isochronous

devices.

For **Claim 14**, Chan and MacDonald disclose the device of claim 13, wherein the

bandwidth manager is coupled to the plurality of isochronous devices to manage data

communication between the plurality of isochronous devices and a memory (RAM, 120 of FIG. 1).

As to **Claim 15**, Chan and MacDonald disclose the device of claim 14, wherein a duration of the time period depends on a status of a processor (CPU & RAM 120 of FIG. 1, where CPU running the Operating system of the computer controls control devices 122 and 124).

As to **Claim 16**, Chan and MacDonald disclose the device of claim 14, wherein the plurality of isochronous devices are related to the plurality of isochronous applications run by a processor (CPU & RAM 120 of FIG. 1), and wherein the data rate requirements are associated with a plurality of time delay (caused by control device 122 or 124 of FIG. 1) compliance limits for the plurality of isochronous devices.

As to **Claim 29**, Chan and MacDonald disclose the system of claim 28;

Chan further discloses the data transmission policy further comprising: identifies a plurality of transmission time periods during which to transmit a plurality of combined isochronous data packet transmissions (as shown in claim 28) and the combined data packet transmission (as suggested by FIG. 1, where the controller 124 has the total control of transmission, including scheduling transmission of different traffic at different time) between one of a transmission time of an asynchronous data packet transmission (data stream from storage device 114 of FIG. 1), a third isochronous data packet transmission (data stream from Digital Audio Gen. 129 of FIG. 1).

Chan is silent on selecting a time to transmit the combined data packet transmission of an asynchronous data with an isochronous data packet transmission

and a transmission time for one data transmission of the plurality of combined

isochronous data packet transmissions.

However, since the controller (124 of FIG) has total control of transmission as

shown in FIG. 1, it can control the transmission according to user requirements,

including the case of selecting a time to transmit the combined data transmission of an

asynchronous data with an isochronous data transmission and a transmission time for

one data transmission of the plurality of combined isochronous data transmissions.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to combine isochronous data transmissions with opportunistic

data transmission for the benefit of efficiency.

As to **Claim 30**, Chan and MacDonald disclose the system of claim 29.

Chan does not explicitly disclose wherein the data transmission policy further:

transmits an opportunistic data transmission prior to expiration of a transmission time

period, the opportunistic data transmission having media data from at least two

isochronous data.

However, since the controller (124 of FIG) has total control of transmission as

shown in FIG. 1, it can control the transmission according to user requirements,

including the case of transmitting an opportunistic data transmission prior to expiration

of a transmission time period, the opportunistic data transmission having media data

from at least two isochronous data.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to transmit an opportunistic data transmission prior to

expiration of a transmission time period, the opportunistic data transmission having media data from at least two isochronous data in order to meet user's requirements.

As to **Claim 32**, Chan and MacDonald disclose the method of claim 1, Chan further discloses the power managed profile is based on power usage policy (as taught in claim 1) for a processor, RAM memory (CPU & RAM 120 of FIG. 1), hard drive (Storage device 114 of FIG. 1), processor logic, memory controller (122 of FIG. 1), chipset logic and data bus use (124 of FIG. 1).

As to **Claim 37**, Chan and MacDonald disclose the method of claim 1, Chan further discloses a portioning includes dividing the total memory bandwidth into at least four portions of the total memory bandwidth to balance between total power available according to the power managed profile and a plurality of minimum bandwidth requirements of individual entities generating the plurality of bandwidth requests (FIG. 1 shows portioning the total memory bandwidth into multiple portions with each portion for a specific drives, such as drivers associated with Storage device 114 that may include multiple drivers [0037], or IDE bus 128 [0039], which may have at least 4 driver (most PC IDE interface support 4 devices; the computer Operating System does the portioning to balance between total power available according to the power managed profile and a plurality of minimum bandwidth requirements of individual entities).

8.   **Claims 2, 4, 8-12, 17-21, 23-27** and **34-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of MacDonald, further in view of NA et al (US 2001/0028780, hereinafter **NA**).

As to **Claim 2, 23** and **36** Chan and MacDonald disclose claim 1 and 22, Chan

further discloses the method comprising:

determining a data transmission policy based on the power managed profile

(PMRs, line 4 of [0041]) and the plurality of bandwidth requests (122 or 124 of FIG. 1),

the data transmission policy to manage delaying (cause a delay, line 11 of [0080])

transmission of a first isochronous data transmission.

Chan **does not explicitly disclose** combining data of the first isochronous data

packet transmission with data of a second data transmission into a combined data

transmission.

NA teaches combining data of the first isochronous data transmission with data

of a second data transmission into a combined data transmission (a multi-program

transport stream isochronous **packets,** lines 2-3 of claim 10; where each program has a

isochronous, and streams from multi-programs are combined to form a new stream).

Also to a person skilled in the art, Chan's disclosure actually implicitly teaches the

combination of 2 isochronous data streams into one (an isochronous data stream, such

as audio, from 114 of FIG. 1 and another isochronous data stream, such as video, from

138 of FIG. 1 into one data stream in data bus 116 of FIG. 1).

Chan and NA teach are in the same field of endeavor, NA discloses additional

functionalities and features such as multi-program.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to use NA to modify Chan to combine two isochronous data

stream into one data stream due to benefit of more functionalities and features to the system.

As to **Claim 4** and **24,** Chan and MacDonald disclose claim 1 and 22, wherein apportioning includes dividing the total memory bandwidth into a plurality of portions of the total memory bandwidth and satisfying at least two of the plurality of bandwidth requests (such as 114 or 138 for only part of the total memory bandwidth) each with at least one of the plurality of portions of the total memory bandwidth (by 122 or 124 or in combination of FIG. 1 as it is designed to controls time duration and bandwidth for all the devices that needs to access to the data bus).

Chan **does not explicitly disclose** apportioning bandwidth by combining the data of at least two isochronous data packet transmissions.

NA teaches combining data of the first isochronous data transmission with data of a second data transmission into a combined data transmission (a multi-program transport stream isochronous **packets,** lines 2-3 of claim 10; where each program has a isochronous, and streams from multi-programs are combined to form a new stream). Also to a person skilled in the art, Chan's disclosure actually implicitly teaches the combination of 2 isochronous data streams into one (an isochronous data stream, such as audio, from 114 of FIG. 1 and another isochronous data stream, such as video, from 138 of FIG. 1 into one data stream in data bus 116 of FIG. 1).

Chan and NA teach are in the same field of endeavor, NA discloses additional functionalities and features such as multi-program.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use NA to modify Chan to combine two isochronous data stream into one data stream due to benefit of more functionalities and features to the system.

For **Claim 5 and 17**, Chan discloses a method and a device (portable computer running the Operating System to control the whole system, [0005]) comprising:

delaying ("cause a delay", [0080]; 124 of FIG 1 controls data traffic and it will delay a isochronous data transmission if its bandwidth request can not be granted) transmission of a first isochronous data transmission (a data stream from 118 or 138 of FIG. 1) having media data to be transmitted to or from a first isochronous device (one of IDE devices, such as 114 or 138 of FIG. 1);

using the transmission policy ("Power Management Routines (PMRs)", [0041], which defines power management policies) to identify a plurality of transmission time periods during which to transmit a plurality of combined isochronous data packet transmissions , each combined isochronous data packet transmission having media data from at least two isochronous data packet transmissions; and

using the transmission policy to select a time to transmit the combined data transmission (the operating system of "Portable computers", [0005] and [0006], or memory controller 122 of FIG. 1, which has total control over the memory and is able to transmit the specific data at a selected time), wherein selecting includes selecting between a transmission time of an opportunistic data transmission and a transmission time of a combined isochronous data transmission (FIG. 1, where both opportunistic

data [such as data from the keyboard 112] and the isochronous data above need to be sent, therefore selecting a time to transmit what type of data is made).

Chan **does not explicitly disclose** appending the first isochronous data transmission with a second isochronous data transmission having media data to be transmitted to or from the first isochronous device into a combined data transmission, wherein appending is performed according to a data packet transmission policy.

NA teaches combining data of the first isochronous data transmission with data of a second data transmission into a combined data transmission ("transfers a multi-program transport stream isochronous **packets**", claim 10; where each program handles an isochronous data stream, and streams from multi-programs are combined to form a new stream to "said first digital interface"). Also to a person skilled in the art, Chan's disclosure actually implicitly teaches the combination of 2 isochronous data streams into one (an isochronous data stream, such as an audio data stream from 114 of FIG. 1 and another isochronous data stream, such as video from 138 of FIG. 1 into one data stream in data bus 116 of FIG. 1).

Chan and NA teach are in the same field of endeavor, NA discloses additional functionalities and features such as multi-program.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use NA to modify Chan to combine two isochronous data stream into one data stream due to benefit of more functionalities and features to the system.

As to **Claim 8**, Chan and NA in combination disclose the method of claim 5.

Chan further discloses the opportunistic data transmission comprising one of an asynchronous data transmission (such as data from keyboard 112 of FIG. 1);

Chan does not explicitly disclose that the opportunistic data transmission comprises a third isochronous data packet transmission.

However, by definition, the opportunistic data transmission may comprise any data transmission, including the isochronous data transmission (though without guarantee of the desired QoS), which does not interfere with other isochronous data transmission not included in the opportunistic data packet transmission.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine isochronous data packet transmissions with opportunistic data packet transmission comprising one of an asynchronous data transmission and a third isochronous data packet transmission for the benefit of efficiency.

As to **Claim 9**, Chan and NA in combination disclose the method of claim 5,

Chan further discloses the method comprising: the data packet transmission policy reduces a first frequency of transmission times related to transmitting the first isochronous data packet transmission to a less frequent second frequency of transmission times related to transmitting the combined data packet transmission (the frequency of transmitting the first isochronous data may be reduced within the boundary of time requirement for the isochronous data by definition of isochronous data packet transmission, as suggested by FIG. 1 since they share the same bus).

As to **Claim 10**, Chan and NA in combination disclose the method of claim 5,

Chan further discloses the method comprising: one of reading media data of the

combined data packet transmission from a memory (part of RAM 120 of FIG. 1) and

writing media data of the combined data packet transmission to a memory (another part

of RAM 120 of FIG. 1).

As to **Claim 11**, Chan and NA in combination disclose the method of claim 5,

Chan does not explicitly disclose the method further comprising: delaying

transmission of the second isochronous data packet transmission.

However, the data packet transmission policy (set by 124 of FIG. 1 of Chan) can

easily be set (because controller 124 has total control of the transmission as shown in

FIG. 1) to delay transmission of the second isochronous data packet transmission for

the benefit of saving power assumption (line 3 of [0003]), as soon as the time

requirements for the second isochronous data packet transmission are met.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to delay transmission of the second isochronous data packet

transmission for the benefit of saving power assumption.

As to **Claim 12**, Chan and NA disclose the method of claim 5,

Chan does not explicitly disclose the method further comprising: transmitting the

combined data packet transmission prior to expiration of a time delay compliance limit.

However, the data packet transmission policy (set by the controller 124 of FIG. 1

of Chan) can easily be set to transmitting the combined data packet transmission prior

to expiration of a time delay compliance limit to ensure the proper transmission
(because the controller 124 has total control of transmission as suggested by FIG. 1).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time of the invention to delay transmission of the second isochronous data packet
transmission for the benefit of reliable transmission.

Claim 18 is rejected because it is the corresponding device claim of claim 8.

As to **Claim 19**, Chan and NA disclose the device of claim 18, wherein the third
isochronous data transmission is to be transmitted to or from a second isochronous
device (another software program running on the computer 100 of FIG. 1 requiring a
video/audio data stream from another IDE device).

As to **Claim 20**, Chan and NA disclose the device of claim 17, further comprising:
one of a processor (CPU 120 of FIG. 1) and a (data bus 116 of FIG. 1) coupled to a
memory (RAM 120 of FIG. 1), wherein the combined data transmission is read from or
written to the memory via the processor or the data bus (computer system 100 running
software program for playing/recording video/audio data streams).

As to **Claim 21**, Chan and NA disclose the device of claim 17, wherein the media
data of the first and second isochronous data transmission include one of digital audio
data and digital video data (computer system 100 running software program for
playing/recording video/audio data streams).

Claims 25-27 are rejected because they are the corresponding article of
manufacture claims of claims 5-7.

As to **claim 34**, Chan in view of MacDonald and NA discloses claim 2, Chan further discloses the data transmission policy (policy implemented by controller 124 of FIG. 1) to manage delaying transmission of a third and a fourth isochronous data packet transmission (keyboard and mouse, [0037] in view of 112 of FIG. 1), and to manage combining data of the third and fourth isochronous data packet transmissions with data of an asynchronous data packet transmission (asynchronous and isochronous data packet transmissions are all merged via controller 124 to system bus 116 as shown in FIG. 1, where asynchronous data transmissions are delay to ensure isochronous packet data transmissions to be delivered in synchronization; notice that data are most commonly transmitted in packets in a digital system) into the combined data packet for transmission (suggested by "digital computer bus" of [0025], because digital data are transmitted in data packet, which is common knowledge in the art).

As to **Claim 35**, Chan and MacDonald disclose claim 5 wherein appending further comprises: appending an asynchronous data packet transmission with the first and second isochronous data packet transmissions to form the combined data packet transmission into the combined data packet for transmission (suggested by "digital computer bus" of [0025], because digital data are transmitted in data packet, which is common knowledge in the art).

9.   **Claim 31** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of MacDonald, further in view of Hsu (US 6288896 B1, hereinafter **Hsu**).

As to **Claim 31**, Chan and MacDonald disclose the method of claim 1, but are silent on the power managed profile is based on maximizing the life of a battery of a computer.

In the same field of endeavor, Hsu teaches maximizing the life of a battery of a computer (col. 1, line 28-30, "battery-powered computers, where maximum battery life is desirable").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Chan and MacDonald's teaching to setup power managed profile based on maximizing the life of a battery of a computer as taught by Hsu in order to requirements of users.

10.   **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of MacDonald, further in view of Wu et al. (US 20030206520 A1, hereinafter **Wu**)

As to **Claim 33**, Chan and MacDonald disclose the method of claim 1, but do not explicitly discloses the power managed profile apportions the bandwidth based on a balance between a total power available and a minimum bandwidth requirement of individual entities submitting the requests and including the isochronous devices.

Wu teaches balancing between power and bandwidth requirement ("optimal and flexible balance between radio bandwidth, terminal storage and power usage", [0047]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Chan and MacDonald's teaching to setup power managed profile based on optimal and flexible balance between radio bandwidth and power as taught by Wu in order to requirements of users.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianye Wu whose telephone number is (571)270-1665. The examiner can normally be reached on Monday to Thursday, 8am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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